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PAULEY PETERSEN & ERICKSON
2800 WEST HIGGINS ROAD
SUITE 365
HOFFMAN ESTATES, IL 60169

EXAMINER	
BLOCH, MICHAEL	
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3735	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/572,997	FORSTNER, KLAUS	
	Examiner	Art Unit	
	MICHAEL R. BLOCH	3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *6/30/2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *2-4,6-12,14-22,28-30 and 32-35* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *2-4, 6-12, 14-22, 28-30, 32-35* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *30 June 2011* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 2-4, 6-12,14- 22, 28-30, 32-35 are currently pending in the application.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14-16, 32-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claims 14-16, the claim are dependent on a cancelled claim which renders the claim indefinite. For examination purposes, the claims were examined as being dependent of the independent claim 35.

4. Claim 32 recites the limitation "the individual blood pressure measurement" in line 4, it is suggested to amend the claim to read --the blood pressure measurement-- as there is insufficient antecedent basis for this limitation in the claim. Claim 33 is rejected for being dependent on a rejected claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 8-9, 21-22, 30, 34-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramsey, III et al. (Ramsey, US 5,170,795; cited by applicant).

Regarding claim 35, Ramsey discloses a blood pressure measuring method (see title), comprising: determining with a sphygmomanometer (see abstract blood pressure cuff), and an individual pulse oscillogram (Po) of a patient of a single sphygmomanometer cuff pressure increase and release cycle (see Figure 1), for detecting a blood pressure value (see title and see col. 1 Lns. 10-16); testing with an evaluating device of the sphygmomanometer for hemodynamic stability of the patient during the single sphygmomanometer cuff pressure increase and release cycle, by the evaluating device determining and evaluating a hemodynamic parameter or at least one other physiological parameter which correlates with the hemodynamic parameter, with respect to chronological changes (see col. 2 Ln. 66-col. 3 Ln. 4 where a stored complex peak-representing data set is corrected for aberrations; and improved data processing operates on the stored (and advantageously corrected) pulse peak data and the corresponding cuff pressure information to determine the subject's systolic, diastolic and mean arterial pressure); and the evaluating device determining and indicating whether the blood pressure value was obtained during the hemodynamic stability, or whether a corrected blood value is to be determined; wherein testing for the hemodynamic stability of the patient is performed by determining and analyzing with the evaluating device at least one of a pulse period progression, a pulse amplitude progression, or a pulse shape of only the individual pulse oscillogram (PO) (see Figures 1, 3-9).

Regarding claim 8, Ramsey discloses an entire progression of all pulse periods in regard to their chronological change is determined and used as a measure for the hemodynamic stability (see Figure 1).

Regarding claim 9, Ramsey discloses an entire progression of pulse-specific systolic times in regard to changes over time is determined and used as a measure of the hemodynamic stability (see Figures 1 where corrected pressure values are shown over time for mean arterial pressure, and Figure 3 where systolic pressures are made, and see col. 2 Ln. 66-col. 3 Ln. 4 where a stored complex peak-representing data set is corrected for aberrations; and improved data processing operates on the stored (and advantageously corrected) pulse peak data and the corresponding cuff pressure information to determine the subject's systolic, diastolic and mean arterial pressure).

Regarding claim 21, Ramsey discloses the individual pulse oscillogram (PO) is subjected to an analysis regarding the hemodynamic stability (see col. 2 Ln. 66-col. 3 Ln. 4 where a stored complex peak-representing data set is corrected for aberrations; and improved data processing operates on the stored (and advantageously corrected) pulse peak data and the corresponding cuff pressure information to determine the subject's systolic, diastolic and mean arterial pressure).

Regarding claim 22, Ramsey discloses prior to obtaining assessment criteria, influential values of at least one of artifacts and arrhythmia are suppressed (see col. 2 Ln. 66-col. 3 Ln. 4 where a stored complex peak-representing data set is corrected for aberrations; and improved data processing operates on the stored (and advantageously corrected) pulse peak data and the corresponding cuff pressure information to determine the subject's systolic, diastolic and mean arterial pressure).

Regarding claim 30, Ramsey discloses as the assessment criteria for the hemodynamic stability the analysis of the pulse shape includes a determination of at least one rise at least at one point of at least one of an ascending flank and a descending pulse flank, and a chronological change in the rise at the respective points or a ratio of the rises at least at two points of a pulse is checked for different pulses (see Figure 1 and Figure 3).

Regarding claim 34, Ramsey discloses a diagnosis of hemodynamic instability is an automated correction of error effects (see col. 2 Ln. 66-col. 3 Ln. 4 where a stored complex peak-representing data set is corrected for aberrations; and improved data processing operates on the stored (and advantageously corrected) pulse peak data and the corresponding cuff pressure information to determine the subject's systolic, diastolic and mean arterial pressure).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

9. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsey, III et al. (Ramsey, US 5,170,795) as applied to claim 35 above, and further in view of Ramsey, III (herein referred as Ramsey III; US 4,349,034; previously cited).

Regarding claim 2, the limitations are fully met by Ramsey, except the limitation "a warning indication is generated by an evaluation criteria if there is a deviation from one of a preset and a predeterminable threshold criteria" is not directly taught. Ramsey III teaches this limitation in an automatic mean blood pressure reading device (see title), where a measured mean arterial pressure below a predetermined low-limit would cause a comparator to activate an alarm circuit to generate an audible tone and a visible flashing light (see col. 6 Lns. 39-43). It would have been obvious to one of ordinary skill in the art at he time of the invention to modify Ramsey with the teachings of Ramsey III to include an alarm with a threshold in order to alert a physician of an adverse condition.

Regarding claim 3, the limitations are fully met by Ramsey modified with the teachings of Ramsey III, where Ramsey teaches the individual pulse oscillogram (PO) is subjected to an analysis regarding the hemodynamic stability (see col. 2 Ln. 66-col. 3 Ln. 4 where a stored complex peak-representing data set is corrected for aberrations; and improved data processing operates on the stored (and advantageously corrected) pulse peak data and the corresponding cuff pressure information to determine the subject's systolic, diastolic and mean arterial pressure).

Regarding claim 4, the limitations are fully met by Ramsey modified with the teachings of Ramsey III, where Ramsey teaches prior to obtaining assessment criteria, influential values of at least one of artifacts and arrhythmia are suppressed (see col. 2 Ln. 66-col. 3 Ln. 4 where a

stored complex peak-representing data set is corrected for aberrations; and improved data processing operates on the stored (and advantageously corrected) pulse peak data and the corresponding cuff pressure information to determine the subject's systolic, diastolic and mean arterial pressure).

10. Claims 6-7, 10, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsey, III et al. (Ramsey, US 5,170,795) as applied to claim 9, 35 above, and further in view of Diab (Diab, US 6,463,311).

Regarding claim 6, the limitations are fully met by Ramsey, except the limitation "pulse period lengths of at least a starting range and an end range of the individual pulse oscillogram (PO) are compared with each other, and a deviation of the pulse period lengths of a starting range ($T_{initial}$) and an end range ($T_{terminal}$) is made a basis of the assessment criteria" is not included. Diab teaches the usage of a ratio checker that compares the ratio of ascending to descending portions of a pulse signal to a threshold (see col. 8 Lns. 34-48). It would have been obvious to one of ordinary skill at the time of the invention to modify Ramsey with the teachings of Diab to include a ratio checker for comparing the difference in time lengths of the pulse periods in order to remove pulses that do not meet a set threshold of a typical physiological pulse (see Diab col. 8 Lns. 38-41); thus, the inclusion of a comparison of pulse period component times used as assessment criteria is an obvious mechanical expedient.

Regarding claim 7, the limitations are fully met by Ramsey modified with the teachings of Diab, where Diab teaches a deviation of the lengths of the pulse period is calculated by the pulse oscillogram (PO) as a difference of lengths of the periods of the starting range and the end range as a function of a mean pulse period length of the pulse oscillogram (see col. 8 Lns. 34-48

where usage of a ratio checker that compares the ratio of ascending to descending portions of the pulse signal to a threshold, and see col. 4 Lns. 46-48 where a pulse statistic subprocessor calculates a mean pulse period as an output).

Regarding claim 10 and 28, the limitations are full met by Ramsey, except the limitation "an assessment of a constancy of the pulse period progression is included when forming the assessment criteria" is not directly taught. Diab teaches the usage of a ratio checker that compares the ratio of ascending to descending portions of a pulse signal to a threshold (see col. 8 Lns. 34-48 where usage of a ratio checker that compares the ratio of ascending to descending portions of the pulse signal to a threshold, and see col. 4 Lns. 46-48 where a pulse statistic subprocessor calculates a mean pulse period as an output). It would have been obvious to one of ordinary skill at the time of the invention to modify Ramsey with the teachings of Diab to include a ratio checker for comparing the difference in time lengths of the pulse periods in order to remove pulses that do not meet a set threshold of a typical physiological pulse (see Diab col. 8 Lns. 38-41); thus, the inclusion of a comparison of pulse period component times used as assessment criteria is an obvious mechanical expedient.

11. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsey, III et al. (Ramsey, US 5,170,795) in view of Diab (Diab, US 6,463,311) as applied to claim 10 above, and further in view of Goto et al. (Goto, US 2003/0092999).

Regarding claim 11, the limitations are fully met by Ramsey modified with the teachings of Diab, except the limitations "a rise (α) in an ascending branch of one of an envelope and a rise (β) in a descending branch, a plateau width (PL) around a maximum, or a combination of at least

two of these characteristic values from the pulse amplitude progression each is used as a characteristic value for forming the assessment criteria" is not included. Goto teaches that the angle of ascent changes depending on applied cuff pressure, where the pulse wave shortens and does not allow for high accurate blood pressure readings when the cuff pressure is low (see [0043] and Figure 6), and Goto teaches that a computer determines a systolic blood pressure when the pulse amplitudes significantly change in phase in which the amplitudes increase and diastolic pressure when the pulse amplitude significantly change in phase in which the amplitude decreases, (see [0077]), and Goto teaches the usage of a computer to determine a point or time where the values L have significantly changed indicating an inflection point and is an indication of true diastolic blood pressure (see [0114], [0115], Figures 8 and 12). It would have been obvious to one of ordinary skill at the time of the invention to modify Ramsey, modified with the teaching of Diab, with the teachings of Goto to include indices of ascending angles and maximum/ minimum pressures determined inflection points as assessment criteria in order to determine more accurate blood pressure readings and identify change in measurements from oscillometric recordings.

Regarding claim 12, the limitations are fully met by Ramsey modified with the teaching of Diab and Goto, where Ramsey teaches as the assessment criteria for the hemodynamic stability the analysis of the pulse shape includes a determination of at least one rise at least at one point of at least one of an ascending flank and a descending pulse flank, and a chronological change in the rise at the respective points or a ratio of the rises at least at two points of a pulse is checked for different pulses (see Figure 1 and Figure 3).

12. Claims 14-16, 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsey, III et al. (Ramsey, US 5,170,795) as applied to claim 35 above, and further in view of Doten et al. (Doten, US 2002/0058875).

Regarding claim 14, the limitations are fully met by Ramsey, except that the limitation of "at least one of a breathing frequency signal, an electrocardiogram signal and a skin impedance measurement signal each is determined and evaluated in regard to a chronological change during a blood pressure measurement" is not included. Ramsey teaches that aberrations in pulse signals can be caused by respiratory changes in a subject (see col. 5 Lns. 1-7), and Doten teaches the usage of determining a respiration rate during blood pressure readings (see Figure 3 and [0048]), and the usage of additional sensors such as an EKG (see [0032]). It would have been obvious to one of ordinary skill at the time of the invention to modify Ramsey with the teachings of Doten to include determination of respiration rate from oscillometric in order to achieve a more accurate indication of the respiratory affect on blood pressure, or other physiological signal correlations with blood pressure readings; thus, the determination of a correlation between physiological signals and blood pressure is an obvious mechanical expedient.

Regarding claim 15, the limitations are fully met by Ramsey modified with the teachings of Doten, where Doten teaches s a breathing frequency signal is obtained from one of the analysis of the pulse oscillogram and by an additional sensor arrangement (see Figure 3 and [0048] where respiration rate is determined from oscillometric readings, and [0032] where multiple sensors can be used).

Regarding claim 16, the limitations are fully met by Ramsey modified with the teachings of Doten, where Ramsey teaches a diagnosis of hemodynamic instability is an automated

correction of error effects (see col. 2 Ln. 66-col. 3 Ln. 4 where a stored complex peak-representing data set is corrected for aberrations; and improved data processing operates on the stored (and advantageously corrected) pulse peak data and the corresponding cuff pressure information to determine the subject's systolic, diastolic and mean arterial pressure).

Regarding claim 32 the limitations are fully met by Ramsey, except that the limitation of "at least one of a breathing frequency signal, an electrocardiogram signal and a skin impedance measurement signal each is determined and evaluated in regard to a chronological change during the individual blood pressure measurement" are not included. Doten teaches the usage of determining the respiration rate during blood pressure readings (see Figure 3 and [0048]), and the usage of using additional sensors such as an EKG (see [0032]) It would have been obvious to one of ordinary skill at the time of the invention to modify Ramsey with the teachings of Doten to include determination of respiration rate from oscillometric in order to achieve a more accurate indication of the respiratory affect on blood pressure, or other physiological signal correlations with blood pressure readings; thus, the determination of a correlation between physiological signals and blood pressure is an obvious mechanical expedient.

Regarding claim 33, the limitations are fully met by Ramsey modified with the teachings of Doten, where Doten discloses a breathing frequency signal is obtained from one of the analysis of the pulse oscillogram and by an additional sensor arrangement (see Figure 3 and [0048] where respiration rate is determined from oscillometric readings and [0032] where multiple sensors can be used).

13. Claims 17, 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsey, III et al. (Ramsey, US 5,170,795) as applied to claim 35 above, and further in view of Goto et al. (Goto, US 2003/0092999).

Regarding claim 17, the limitations are fully met by Ramsey, where Ramsey teaches the sphygmomanometer comprises an inflatable cuff (see abstract blood pressure cuff) and an evaluating device which can be arranged thereon or connected to it with a unit creating the individual pulse oscillogram (PO) (see Figure 10 pressure transducer and microprocessor, and Figure 1 pulse oscillogram), a blood pressure determination device (see Figure 10 microprocessor, Figures 1, 3-9 where blood pressure is determined),
Comprising the evaluating unit having an assessment arrangement embodied so that assessment criteria for the presence of hemodynamic stability are formed with it during the determination of the individual pulse oscillogram (PO) (see Figure 1 and Figures 3-9 where blood pressures are determined through the pulse oscillogram measurements), an indicator of hemodynamic instability (see Figure 1). However, the limitation of a display device is not directly taught in Ramsey. Goto teaches the use of a display device in combination with a control unit that includes a central processing unit, and a display. It would have been obvious too one of ordinary skill in the art at the time of the invention to modify Ramsey with the teachings of Goto to include a display with a device to measure blood pressure in order to display measurements to a physician to monitor health status of patients.

Regarding claim 18, the limitations are fully met by Ramsey modified with the teachings of Goto, where Ramsey teaches the assessment arrangement is designed for detecting at least one of a pulse period progression, a pulse amplitude progression, pulse forms from the pulse

oscillogram (PO), a formation of the assessment criteria from the pulse period progression, a pulse amplitude progression, and a pulse form change (see Figure 1, Figures 3-9)

Regarding claim 29, the limitations are fully met by Ramsey, except the limitations "a rise (α) in an ascending branch of one of an envelope and a rise (β) in a descending branch, a plateau width (PL) around a maximum, or a combination of at least two of these characteristic values from the pulse amplitude progression each is used as a characteristic value for forming the assessment criteria" is not included. Goto teaches that the angle of ascent changes depending on applied cuff pressure, where the pulse wave shortens and does not allow for high accurate blood pressure readings when the cuff pressure is low (see [0043] and Figure 6), and Goto teaches that a computer determines a systolic blood pressure when the pulse amplitudes significantly change in phase in which the amplitudes increase and diastolic pressure when the pulse amplitude significantly change in phase in which the amplitude decreases, (see [0077]), and Goto teaches the usage of a computer to determine a point or time where the values L have significantly changed indicating an inflection point and is an indication of true diastolic blood pressure (see [0114], [0115], Figures 8 and 12). It would have been obvious to one of ordinary skill at the time of the invention to modify Ramsey with the teachings of Goto to include indices of ascending angles and maximum/ minimum pressures determined inflection points as assessment criteria in order to determine more accurate blood pressure readings and identify change in measurements from oscillometric recordings.

14. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsey, III et al. (Ramsey, US 5,170,795) in view of Goto et al. (Goto, US 2003/0092999) as applied to claims 17-18 above, and further in view of Doten et al. (Doten, US 2002/0058875).

Regarding claims 19 and 20, the limitations are fully met by Ramsey modified with the teachings of Goto, except the limitation "the assessment arrangement detects at least one secondary physiological parameter correlating with a change of hemodynamics which relates to at least one of a breathing frequency signal, an electrocardiogram signal and a skin impedance signal" is not included. Ramsey teaches that aberrations in pulse signals can be caused by respiratory changes in a subject (see col. 5 Lns. 1-7), and Doten teaches the usage of determining a respiration rate during blood pressure readings (see Figure 3 and [0048]), and the usage of additional sensors such as an EKG (see [0032]). It would have been obvious to one of ordinary skill at the time of the invention to modify Ramsey, modified with the teachings of Goto, with the teachings of Doten to include determination of respiration rate from oscillometric in order to achieve a more accurate indication of the respiratory affect on blood pressure, or other physiological signal correlations with blood pressure readings; thus, the determination of a correlation between physiological signals and blood pressure is an obvious mechanical expedient.

Response to Arguments

1. The Examiner acknowledges the amendments submitted by applicant regarding the specification (first full paragraph on page 3; third paragraph on page 11; first paragraph on page 16; last paragraph on page 17; last paragraph on page 18); regarding the drawings (Figure 4C)

regarding the amended claims (claims 2, 4, 6-12, 16-22, 28-30, 32, 34); regarding new claim 35; regarding the cancellation of claims (claims 1, 5, 13, 23-27, 31).

2. Applicant's arguments, see p. 18, filed 6/30/2011, with respect to the specification and drawings objections have been fully considered and are persuasive due to the amendments of the specification, drawings and claims. The objections to the drawings and specification have been withdrawn.

3. Applicant's arguments, see p.18 filed 6/30/2011, with respect to the rejections of claims 3-21 and 23-34 under 35 U.S.C. 112, second paragraph, have been fully considered and are partially persuasive due to amendments and cancellations to/of the claims. As indicated above, claims 32-33 rejections under 35 U.S.C. 112, second paragraph, are maintained due to a lack of antecedent basis found in claim 32.

4. Applicant's arguments, see p. 19, filed 6/30/2011, with respect to the rejections of claims 1-16 and 21-34 under 35 U.S.C. 101 have been fully considered and are persuasive due to amendments and cancellations of/to the claims. The rejections under 35 U.S.C. 101 have been withdrawn.

5. Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. BLOCH whose telephone number is (571)270-3252. The examiner can normally be reached on 7:30-5:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisors, Charles Marmor II can be reached on (571)272-4730, or Miranda Le can be reached on (571)272-4112. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Miranda Le/
Supervisory Patent Examiner, Art Unit 3735

/M. R. B./
Examiner, Art Unit 3735